

Practical 2 - Principles of Database Systems

1. Database Systems

Considering the 9 Rules for DBMS, why or why not do the following systems conform to Codd's definition of a database management system:

- Spreadsheet Applications (e.g. Microsoft Excel)
- Network File Systems
- MySQL
- IBM DB2

2. The 3 Level Schema Architecture

Given a database system covering information about all students of the University of Magdeburg, what would be the advantages of

- logical data independence and
- physical data independence

as provided by a DBMS?

3. The Relational Model

Given the following simple relational schemas

Student(matrNr, firstname, lastname, birthdate)

Lecture(id, title, lecturerName)

Attends(matrNr, id, semester, grade)

what possible integrity constraints could be expressed for them?